Magnesium-based supports for stem cell therapy of vascular disease

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Statements

1. Pure magnesium (Mg) its highly reactive
2. The use of Sodium fluoride, hexamethylenetetramine and mannitol in the anodizing process of Mg improves its corrosion resistance
3. Degradation rate of Mg can be controlled by PEO technique
4. Steam autoclave do not affect the characteristics of the modified samples of Mg
5. Biological activity of cells exposed to Mg are affected by an increment in the pH and local Mg concentration.
6. Endothelial cells (HUVEC) and smooth muscle cells (SMC) are more sensitive to changes in Mg concentration than other cell types
7. ECs and SMC play are directly affected by the placement of an Mg implant.
8. Samples of Mg modified by PEO reduce the Mg release resulting in better cell viability and vessel function.
9. Mg is a complex material to evaluate in vitro.
10. In vivo test is needed to validate the information in vitro.
11. Therapeutic cell + magnesium = fast tissue regeneration
12. Coated Mg is better than c.p Mg (in biological terms)
13. It's going to be hard. But hard is not impossible
14. I use to love scientific challenges until I started to work with magnesium.